

## **APPARATUS AND METHOD FOR CONVERTING A FULLY-DIFFERENTIAL CLASS-AB INPUT SIGNAL TO A RAIL-TO-RAIL SINGLE ENDED OUTPUT SIGNAL**

### **ABSTRACT OF THE DISCLOSURE**

An apparatus for converting a fully-differential input signal to an output signal which varies  
5 between two rail limits and includes: (a) a first buffer receiving one component at a first input, presenting a first buffer output signal at a first buffer output and generating a first representative signal; (b) a second buffer receiving the other component at a second input, presenting a second buffer output signal at a second buffer output and generating a second representative signal; (c) a control unit coupled with at least one of the buffer outputs and comparing the buffer output signals  
10 with a reference signal to generate at least one control signal for reducing drift in the first and second components; and (d) an output unit coupled for combining the representative signals from the buffers to present the single output signal with rail-to-rail variance at an output locus.